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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)			
		10/772,518	DYE ET AL.			
	Office Action Summary	Examiner	Art Unit			
		Qing Chen	2191			
Period fo	The MAILING DATE of this communication ap or Reply	pears on the cover sheet with the o	correspondence address			
WHIC - Exter after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPLEMEVER IS LONGER, FROM THE MAILING DISSIDER IN THE MAILING DEPLY WITH THE M	ATE OF THIS COMMUNICATION 136(a). In no event, however, may a reply be tinwill apply and will expire SIX (6) MONTHS from e, cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).			
Status						
1) 又	Responsive to communication(s) filed on <u>17 J</u>	une 2008				
•		s action is non-final.				
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٠,١	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Dispositi	on of Claims					
4)🖂	Claim(s) <u>1,3,4,6-20 and 22-58</u> is/are pending	in the application.				
	4a) Of the above claim(s) is/are withdrawn from consideration.					
	5) Claim(s) is/are allowed.					
	6)⊠ Claim(s) <u>1,3,4,6-20 and 22-58</u> is/are rejected.					
· ·	Claim(s) is/are objected to.					
•	Claim(s) are subject to restriction and/o	or election requirement.				
	on Papers					
9) The specification is objected to by the Examiner.						
•	The drawing(s) filed on is/are: a) ☐ acc		Examiner			
.0/						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
	ınder 35 U.S.C. § 119					
	I2) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:					
a)	1. Certified copies of the priority documents have been received.					
	 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage 					
	application from the International Bureau (PCT Rule 17.2(a)).					
* See the attached detailed Office action for a list of the certified copies not received.						
See the attached detailed Office action for a list of the certified copies flot received.						
Attachment(s)						
1) Notice of References Cited (PTO-892) A) Interview Summary (PTO-413) Discrete of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date						
3) Information Disclosure Statement(s) (PTO/SB/08) 5) Notice of Informal Patent Application						
Paper No(s)/Mail Date 6) Uther:						

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DETAILED ACTION

1. This Office action is in response to the amendment filed on June 17, 2008.

- 2. Claims 1, 3, 4, 6-20, and 22-58 are pending.
- 3. Claims 1, 3, 6, 11-13, 15-17, 19, 20, 22, 23, 28, 35, 37, 38, 51-54, and 57 have been amended.
- 4. Claims 2, 5, and 21 have been cancelled.
- 5. The 35 U.S.C. § 112, second paragraph, rejections of Claims 51-58 are withdrawn in view of Applicant's amendments to the claims.
- 6. It is noted that Claims 38 and 57 contain deleted subject matter that is not presented in the immediate prior versions of the claims.
- 7. It is noted that Claim 57 contains claim amendments that are submitted without markings to indicate the changes that have been made relative to the immediate prior version of the claim.

Response to Amendment

Claim Objections

- 8. Claims 6-10, 29-32, 49, 50, and 52-58 are objected to because of the following informalities:
 - Claims 6, 9, 29, 49, and 50 recite the limitation "specifying/specifies the graphical program." Applicant is advised to change this limitation to read "indicating/indicates the graphical program" for the purpose of keeping the claim language consistent throughout the claims.

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• Claims 7 and 8 depend on Claim 6 and, therefore, suffer the same deficiency as Claim 6.

- Claim 10 depends on Claim 9 and, therefore, suffers the same deficiency as Claim 9.
- Claims 30-32 depend on Claim 29 and, therefore, suffer the same deficiency as Claim 29.
- Claims 52-58 recite the category of invention "[t]he memory medium." Applicant is advised to change this category of invention to read "[t]he computer accessible memory medium" for the purpose of providing it with proper explicit antecedent basis.
- Claim 56 recites the limitation "the memory medium." Applicant is advised to change this limitation to read "the computer accessible memory medium" for the purpose of providing it with proper explicit antecedent basis.
- Claim 57 contains a typographical error: The comma (,) at the end of the first "wherein" clause should be changed to a semicolon (;). Applicant is advised to make the correction for the purpose of keeping the grammatical style consistent throughout the claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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10. **Claim 18** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 recites the limitation "said specifying." There is insufficient antecedent basis for this limitation in the claim. In the interest of compact prosecution, the Examiner subsequently interprets this limitation as reading "said indicating" for the purpose of further examination.

Claim Rejections - 35 USC § 103

- 11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 12. Claims 1, 3, 4, 6-20, and 22-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,801,689 (hereinafter "Huntsman") in view of US 4,901,221 (hereinafter "Kodosky").

As per Claim 1, Huntsman discloses:

- receiving user input to the second computer, wherein said user input indicates the graphical program on the first computer, wherein the first computer and the second computer are connected over a network (see Column 9: 12-28, "The second computer 25 is connected to the

first computer over the internet 31 ..." and "A standard WWW "Web" browser 27 such as

Netscape [8] is initiated on a second computer. To operate the remote control system 1, a user

on the second computer 25 specifies the "starter URL" as specified by the coordinated naming

convention 5. URLs are defined by the WWW specification and include a named address of a

target computer and a filename associated with the target computer.");

- executing the graphical program on the first computer (see Column 8: 20-23, "The executing GUI program 23 can be any MS-Windows program including the program manager, and is generally whatever program is in the foreground of the first computer 19.");
- providing information describing the user interface of the graphical program to the second computer during said executing, wherein said providing comprises the first computer providing the information describing the user interface of the graphical program over the network to the second computer (see Column 9: 31-41, "In response to the starter URL, the server program 21 builds a new file, a GIF image file containing the screen image of the GUI on the first computer, and returns the data of REMOTE.HTM."); and
- displaying the user interface of the graphical program on the second computer after said providing (see Column 9: 42-50, "The browser 27 on the second computer 25 will decode the HTML document file, and locate the references to the GIF file, request and retrieve the GIF file containing the screen image in a separate HTTP request, and display the GIF image on the screen of the second computer 25, as an HTML "clickable" image.");
- wherein the user interface facilitates interaction between a user of the second computer and the graphical program executing on the first computer (see Column 9: 42-50, "The

user in this embodiment will see a screen virtually identical to the GUI screen on the first computer. The user may then click on a menu, button, or other Windows control image.").

However, Huntsman does not disclose:

- wherein the graphical program includes a block diagram that comprises a plurality of interconnected function icons representing graphical data flow of a desired function; and
 - wherein said executing the graphical program comprises executing the block diagram.

 Kodosky discloses:
- wherein the graphical program includes a block diagram that comprises a plurality of interconnected function icons representing graphical data flow of a desired function (see Column 8: 8-23, "The virtual instrument 40 also includes a block diagram 46 which graphically provides a visual representation of a procedure by which a specified value for an input variable displayed in the front panel 42 can produce a corresponding value for an output variable in the front panel 42."); and
- wherein said executing the graphical program comprises executing the block diagram (see Column 7: 44-59, "The execution subsystem 24 assigns at least one value to the input variable and executes the execution instructions to produce a value for the output variable. The control processor 26 implements the block diagram editor 22 and the execution subsystem 24 of the preferred embodiment.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of <u>Kodosky</u> into the teaching of <u>Huntsman</u> to include wherein the graphical program includes a block diagram that comprises a plurality of interconnected function icons representing graphical data flow of a desired function; and wherein

said executing the graphical program comprises executing the block diagram. The modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 3, the rejection of Claim 1 is incorporated; and <u>Huntsman</u> further discloses:

- the first computer providing information describing the user interface of the graphical program to a plurality of computers over the network during said executing (see Column 8: 11-15, "One or more second computers 25 running a standard, off-the-shelf hypertext browser program 27, can effectuate remote control using the standard, widely installed networking protocols, including those used in the internet [9]."); and
- each of the plurality of computers displaying the user interface of the graphical program after said providing (see Column 9: 42-50, "The browser 27 on the second computer 25 will decode the HTML document file, and locate the references to the GIF file, request and retrieve the GIF file containing the screen image in a separate HTTP request, and display the GIF image on the screen of the second computer 25, as an HTML "clickable" image.").

As per Claim 4, the rejection of Claim 1 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the graphical program executes to perform a measurement or automation function (see Column 1: 29-34, "GUI environments tend to use a pointing device, like a mouse, in addition to a keyboard. Instead of typing a textual command, the user of a graphical interface

typically selects a button or menu selection with a pointing device such as a mouse and "clicks" on his selection.").

As per Claim 6, the rejection of Claim 1 is incorporated; and <u>Huntsman</u> further discloses:

- the second computer connecting to the first computer over the network after said receiving user input to the second computer (see Column 9: 14-28, "A standard WWW "Web" browser 27 such as Netscape [8] is initiated on a second computer. To operate the remote control system 1, a user on the second computer 25 specifies the "starter URL" as specified by the coordinated naming convention 5. URLs are defined by the WWW specification and include a named address of a target computer and a filename associated with the target computer.");
- wherein said providing information is performed after said user input indicating the graphical program on the first computer and after said connecting (see Column 9: 31-41, "In response to the starter URL, the server program 21 builds a new file, a GIF image file containing the screen image of the GUI on the first computer, and returns the data of REMOTE.HTM.").

As per Claim 7, the rejection of Claim 6 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the graphical program is already executing on the first computer when said connecting occurs (see Column 8: 20-23, "The executing GUI program 23 can be any MS-

Windows program including the program manager, and is generally whatever program is in the foreground of the first computer 19.").

As per Claim 8, the rejection of Claim 6 is incorporated; and <u>Huntsman</u> further discloses:

- the first computer launching execution of the graphical program in response to said connecting to the first computer (see Column 8: 20-23, "The executing GUI program 23 can be any MS-Windows program including the program manager, and is generally whatever program is in the foreground of the first computer 19.").

As per Claim 9, the rejection of Claim 6 is incorporated; and <u>Huntsman</u> further discloses:

- wherein said receiving user input indicating the graphical program on the first computer comprises receiving a uniform resource locator (URL) (see Column 9: 31-33, "The server control program 21 on the first computer 19 recognizes the URL from the second computer and accepts the connection as defined by HTTP and WWW protocol [9].").

As per Claim 10, the rejection of Claim 9 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the URL specifies one of: the first computer or the graphical program on the first computer (see Column 9: 14-28, "A standard WWW "Web" browser 27 such as Netscape [8] is initiated on a second computer. To operate the remote control system 1, a user on the

second computer 25 specifies the "starter URL" as specified by the coordinated naming convention 5. URLs are defined by the WWW specification and include a named address of a target computer and a filename associated with the target computer.").

As per Claim 11, the rejection of Claim 1 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the network is the Internet (see Column 9: 12-14, "The second computer 25 is connected to the first computer over the internet 31 ...").

As per Claim 12, the rejection of Claim 1 is incorporated; and <u>Huntsman</u> further discloses:

- wherein said displaying comprises displaying the user interface of the graphical program on a web browser of the second computer (see Column 9: 42-50, "The browser 27 on the second computer 25 will decode the HTML document file, and locate the references to the GIF file, request and retrieve the GIF file containing the screen image in a separate HTTP request, and display the GIF image on the screen of the second computer 25, as an HTML "clickable" image.").

As per Claim 13, the rejection of Claim 1 is incorporated; and <u>Huntsman</u> further discloses:

- receiving user input to the graphical program via the displayed user interface on the second computer (see Column 9: 42-50, "The user in this embodiment will see a screen virtually

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identical to the GUI screen on the first computer. The user may then click on a menu, button, or other Windows control image."); and

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- providing the user input to the first computer over the network (see Column 9: 50-57, "The WWW browser, in accordance with HTML/HTTP protocol [9,6,7], will determine the coordinates pointed to be the mouse. The coordinates will be sent to the URL associated with the region in the map file, which will contain the address of the first computer. In addition to the coordinates, the HTML mode variables defined by the coordinated naming convention 5 will also be transmitted as the result of a click.");
- wherein the graphical program executing on the first computer is operable to respond to the user input (see Column 9: 61-67 to Column 10: 1-6, "The server control program 21 on the first computer 19 converts the HTML URL selection to GUI control commands using the hypertext-to-GUI-response means 7, and interpret the associated filename as a selection for the corresponding control according to the coordinated naming convention 5, and programmatically select the control or perform other action as request by the MODE and KEYTEXT variables using the programmatic-GUI-control-execution means 13 of the hypertext-to-GUI-response means 7.").

As per Claim 14, the rejection of Claim 1 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the graphical program produces a first output state (see Column 9: 31-41, "In response to the starter URL, the server program 21 builds a new file, a GIF image file

containing the screen image of the GUI on the first computer, and returns the data of REMOTE.HTM."); and

- wherein said displaying the user interface includes displaying the user interface illustrating the first output state (see Column 9: 42-50, "The browser 27 on the second computer 25 will decode the HTML document file, and locate the references to the GIF file, request and retrieve the GIF file containing the screen image in a separate HTTP request, and display the GIF image on the screen of the second computer 25, as an HTML "clickable" image.").

As per Claim 15, the rejection of Claim 14 is incorporated; and <u>Huntsman</u> further discloses:

- providing a user interface update over the network indicating the second output state (see Column 9: 61-67 to Column 10: 1-6, "The server control program 21 on the first computer 19 converts the HTML URL selection to GUI control commands using the hypertext-to-GUI-response means 7, and interpret the associated filename as a selection for the corresponding control according to the coordinated naming convention 5, and programmatically select the control or perform other action as request by the MODE and KEYTEXT variables using the programmatic-GUI-control-execution means 13 of the hypertext-to-GUI-response means 7."); and
- updating the user interface displayed on the second computer in response to the user interface update (see Column 10: 6-10, "Moments later, a user at the second computer 25 will typically select the "REFRESH" hypertext link which sends a reference of REMOTE.HTM of FIG. 10 to the first computer, repeating the behavior just described.").

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As per Claim 16, the rejection of Claim 1 is incorporated; and <u>Huntsman</u> further discloses:

- providing information regarding the graphical program to the second computer over the network (see Column 9: 31-41, "In response to the starter URL, the server program 21 builds a new file, a GIF image file containing the screen image of the GUI on the first computer, and returns the data of REMOTE.HTM."); and

- displaying the graphical diagram on the second computer, using the information regarding the graphical diagram (see Column 9: 42-50, "The browser 27 on the second computer 25 will decode the HTML document file, and locate the references to the GIF file, request and retrieve the GIF file containing the screen image in a separate HTTP request, and display the GIF image on the screen of the second computer 25, as an HTML "clickable" image.").

However, Huntsman does not disclose:

- providing information regarding the block diagram of the graphical program to the second computer over the network.

Kodosky discloses:

- providing information regarding a block diagram of the graphical program (see Column 8: 8-23, "The virtual instrument 40 also includes a block diagram 46 which graphically provides a visual representation of a procedure by which a specified value for an input variable displayed in the front panel 42 can produce a corresponding value for an output variable in the front panel 42.").

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of <u>Kodosky</u> into the teaching of <u>Huntsman</u> to include providing information regarding the block diagram of the graphical program to the second computer over the network. The modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 17, the rejection of Claim 16 is incorporated; and <u>Huntsman</u> further discloses:

- receiving user input to the second computer (see Column 9: 12-28, "A standard WWW "Web" browser 27 such as Netscape [8] is initiated on a second computer. To operate the remote control system 1, a user on the second computer 25 specifies the "starter URL" as specified by the coordinated naming convention 5. URLs are defined by the WWW specification and include a named address of a target computer and a filename associated with the target computer.");
- providing the user input specifying the edit to the first computer over the network (see Column 9: 50-57, "The WWW browser, in accordance with HTML/HTTP protocol [9,6,7], will determine the coordinates pointed to be the mouse. The coordinates will be sent to the URL associated with the region in the map file, which will contain the address of the first computer. In addition to the coordinates, the HTML mode variables defined by the coordinated naming convention 5 will also be transmitted as the result of a click.");
- wherein the first computer is operable to edit the graphical program according to the user input specifying the edit (see Column 9: 61-67 to Column 10: 1-6, "The server control"

program 21 on the first computer 19 converts the HTML URL selection to GUI control commands using the hypertext-to-GUI-response means 7, and interpret the associated filename as a selection for the corresponding control according to the coordinated naming convention 5, and programmatically select the control or perform other action as request by the MODE and KEYTEXT variables using the programmatic-GUI-control-execution means 13 of the hypertext-to-GUI-response means 7.").

However, Huntsman does not disclose:

- receiving user input to the second computer specifying an edit to the block diagram.

Kodosky discloses:

- receiving user input specifying an edit to the block diagram (see Column 18: 47-51, "FIG. 25 shows the EDIT menu selections ... CLEAR is useful for removing items from the active window, e.g., selected wires and structures from the block diagram window, or controls

from the front panel window.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of <u>Kodosky</u> into the teaching of <u>Huntsman</u> to include receiving user input to the second computer specifying an edit to the block diagram. The modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 18, the rejection of Claim 1 is incorporated; and <u>Huntsman</u> further discloses:

- wherein said indicating the graphical program comprises providing a uniform resource locator (URL) (see Column 9: 14-28, "A standard WWW "Web" browser 27 such as Netscape [8] is initiated on a second computer. To operate the remote control system 1, a user on the second computer 25 specifies the "starter URL" as specified by the coordinated naming convention 5. URLs are defined by the WWW specification and include a named address of a target computer and a filename associated with the target computer.").

As per Claim 19, the rejection of Claim 1 is incorporated; and <u>Huntsman</u> further discloses:

- displaying information indicating a plurality of graphical programs on the first computer (see Column 8: 20-23, "The executing GUI program 23 can be any MS-Windows program including the program manager, and is generally whatever program is in the foreground of the first computer 19.");
- wherein, in indicating the graphical program on the first computer, the user input selects the graphical program from the plurality of graphical programs (see Column 9: 47-50, "The user in this embodiment will see a screen virtually identical to the GUI screen on the first computer. The user may then click on a menu, button, or other Windows control image.").

As per Claim 20, the rejection of Claim 19 is incorporated; and <u>Huntsman</u> further discloses:

- wherein said displaying information indicating a plurality of graphical programs on the first computer comprises displaying a list of the plurality of graphical programs on the first computer (see Column 8: 20-23, "The executing GUI program 23 can be any MS-Windows program including the program manager, and is generally whatever program is in the foreground of the first computer 19."); and

- wherein, in indicating the graphical program on the first computer, the user input selects the graphical program from the list of the plurality of graphical programs (see Column 9: 47-50, "The user in this embodiment will see a screen virtually identical to the GUI screen on the first computer. The user may then click on a menu, button, or other Windows control image.").

As per Claim 22, the rejection of Claim 1 is incorporated; however, <u>Huntsman</u> does not disclose:

- wherein the user interface of the graphical program comprises at least one input variable icon for providing inputs to the block diagram and at least one output variable icon for displaying outputs produced by the block diagram.

Kodosky discloses:

- wherein the user interface of the graphical program comprises at least one input variable icon for providing inputs to the block diagram and at least one output variable icon for displaying outputs produced by the block diagram (see Column 8: 13-19, "The virtual instrument 40 also includes a block diagram 46 which graphically provides a visual representation of a procedure by which a specified value for an input variable displayed in the front panel 42 can produce a corresponding value for an output variable in the front panel 42.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of <u>Kodosky</u> into the teaching of <u>Huntsman</u> to include wherein the user interface of the graphical program comprises at least one input variable icon for providing inputs to the block diagram and at least one output variable icon for displaying outputs produced by the block diagram. The modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 23, the rejection of Claim 22 is incorporated; and <u>Huntsman</u> further discloses:

- the user manipulating inputs of at least one input variable on the second computer (see Column 9: 42-50, "The user in this embodiment will see a screen virtually identical to the GUI screen on the first computer. The user may then click on a menu, button, or other Windows control image.");
- providing inputs of at least one input variable to the first computer over the network (see Column 9: 50-57, "The WWW browser, in accordance with HTML/HTTP protocol [9,6,7], will determine the coordinates pointed to be the mouse. The coordinates will be sent to the URL associated with the region in the map file, which will contain the address of the first computer. In addition to the coordinates, the HTML mode variables defined by the coordinated naming convention 5 will also be transmitted as the result of a click.");
- providing the output of at least one output variable to the second computer over the network (see Column 9: 61-67 to Column 10: 1-6, "The server control program 21 on the first computer 19 converts the HTML URL selection to GUI control commands using the hypertext-

to-GUI-response means 7, and interpret the associated filename as a selection for the corresponding control according to the coordinated naming convention 5, and programmatically select the control or perform other action as request by the MODE and KEYTEXT variables using the programmatic-GUI-control-execution means 13 of the hypertext-to-GUI-response means 7."); and

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- displaying the output of at least one output variable on the second computer (see Column 10: 6-10, "Moments later, a user at the second computer 25 will typically select the "REFRESH" hypertext link which sends a reference of REMOTE.HTM of FIG. 10 to the first computer, repeating the behavior just described.").

However, Huntsman does not disclose:

- the block diagram executing using the inputs of at least one input variable; and
- the block diagram generating an output of at least one output variable.

Kodosky discloses:

- the block diagram portion executing using the inputs of at least one input variable on the second computer (see Column 13: 47-55, "... execution instructions can be constructed by constructing a visual display in which at least one input variable produces at least output variable according to a displayed procedure."); and
- the block diagram portion generating an output of at least one output variable (see Column 13: 47-55, "... execution instructions can be constructed by constructing a visual display in which at least one input variable produces at least output variable according to a displayed procedure.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of <u>Kodosky</u> into the teaching of <u>Huntsman</u> to include the block diagram portion executing using the inputs of at least one input variable on the second computer; and the block diagram portion generating an output of at least one output variable. The modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 24, the rejection of Claim 1 is incorporated; however, <u>Huntsman</u> does not disclose:

- wherein the graphical program comprises a graphical data flow program.

Kodosky discloses:

- wherein the graphical program comprises a graphical data flow program (see Column 9: 33-36, "The structures represented in FIGS. 8-12 substantially facilitate the application of data flow programming techniques which are used in the preferred embodiments of the present invention.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of <u>Kodosky</u> into the teaching of <u>Huntsman</u> to include wherein the graphical program comprises a graphical data flow program. The modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 25, the rejection of Claim 1 is incorporated; however, <u>Huntsman</u> does not disclose:

wherein the graphical program comprises a graphical control flow program.

Kodosky discloses:

- wherein the graphical program comprises a graphical control flow program (see Column 9: 36-42, "FIG. 8 illustrates a sequence structure. FIG. 9 illustrates an iterative loop structure. FIG. 10 illustrates a conditional structure ...").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of <u>Kodosky</u> into the teaching of <u>Huntsman</u> to include wherein the graphical program comprises a graphical control flow program. The modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 26, the rejection of Claim 1 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the graphical program comprises a graphical execution flow program (see Column 8: 20-23, "The executing GUI program 23 can be any MS-Windows program including the program manager, and is generally whatever program is in the foreground of the first computer 19.").

As per Claim 27, the rejection of Claim 1 is incorporated; however, <u>Huntsman</u> does not disclose:

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- wherein the graphical program implements a virtual instrument; and

- wherein the user interface of the graphical program comprises a front panel of a

virtual instrument.

Kodosky discloses:

- wherein the graphical program implements a virtual instrument (see Figure 3: 40);

and

- wherein the user interface of the graphical program comprises a front panel of a

virtual instrument (see Figure 3: 42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the teaching of Kodosky into the teaching of Huntsman to

include wherein the graphical program implements a virtual instrument; and wherein the user

interface of the graphical program comprises a front panel of a virtual instrument. The

modification would be obvious because one of ordinary skill in the art would be motivated to

remotely control a virtual instrument.

As per Claim 28, <u>Huntsman</u> discloses:

- a first computer including a processor coupled to a memory, wherein the first

computer is operable to couple to a network (see Figure 4: 19 and 31);

a graphical program stored in the memory of the first computer (see Figure 4: 23);

and

- a second computer operable to couple to the network, wherein the second computer

includes a display (see Figure 4: 25);

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- wherein the second computer is operable to receive user input indicating the graphical program on the first computer (see Column 9: 14-28, "A standard WWW "Web" browser 27 such as Netscape [8] is initiated on a second computer. To operate the remote control system 1, a user on the second computer 25 specifies the "starter URL" as specified by the coordinated naming convention 5. URLs are defined by the WWW specification and include a named address of a target computer and a filename associated with the target computer.");

- wherein the first computer is operable to execute the graphical program and is operable to provide information describing a user interface of the graphical program over the network to the second computer during said executing (see Column 8: 20-23, "The executing GUI program 23 can be any MS-Windows program including the program manager, and is generally whatever program is in the foreground of the first computer 19."; Column 9: 31-41, "In response to the starter URL, the server program 21 builds a new file, a GIF image file containing the screen image of the GUI on the first computer, and returns the data of REMOTE.HTM.");
- wherein the second computer is operable to receive the information describing the user interface over the network and display the user interface of the graphical program in response to said providing (see Column 9: 42-50, "The browser 27 on the second computer 25 will decode the HTML document file, and locate the references to the GIF file, request and retrieve the GIF file containing the screen image in a separate HTTP request, and display the GIF image on the screen of the second computer 25, as an HTML "clickable" image."); and
- wherein the user interface facilitates interaction between a user of the second computer and the graphical program executing on the first computer (see Column 9: 42-50, "The

user in this embodiment will see a screen virtually identical to the GUI screen on the first computer. The user may then click on a menu, button, or other Windows control image.").

However, Huntsman does not disclose:

- wherein the graphical program includes a block diagram that comprises a plurality of interconnected function icons representing graphical data flow of a desired function; and
 - wherein said executing the graphical program comprises executing the block diagram.

 Kodosky discloses:
- wherein the graphical program includes a block diagram that comprises a plurality of interconnected function icons representing graphical data flow of a desired function (see Column 8: 8-23, "The virtual instrument 40 also includes a block diagram 46 which graphically provides a visual representation of a procedure by which a specified value for an input variable displayed in the front panel 42 can produce a corresponding value for an output variable in the front panel 42."); and
- wherein said executing the graphical program comprises executing the block diagram (see Column 7: 44-59, "The execution subsystem 24 assigns at least one value to the input variable and executes the execution instructions to produce a value for the output variable. The control processor 26 implements the block diagram editor 22 and the execution subsystem 24 of the preferred embodiment.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of <u>Kodosky</u> into the teaching of <u>Huntsman</u> to include wherein the graphical program includes a block diagram that comprises a plurality of interconnected function icons representing graphical data flow of a desired function; and wherein

said executing the graphical program comprises executing the block diagram. The modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 29, the rejection of Claim 28 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the second computer is operable to connect to the first computer over the network using the user input that indicates the graphical program on the first computer (see Column 9: 14-28, "A standard WWW "Web" browser 27 such as Netscape [8] is initiated on a second computer. To operate the remote control system 1, a user on the second computer 25 specifies the "starter URL" as specified by the coordinated naming convention 5. URLs are defined by the WWW specification and include a named address of a target computer and a filename associated with the target computer.").

As per Claim 30, the rejection of Claim 29 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the first computer is operable to launch execution of the graphical program in response to the second computer connecting to the first computer (see Column 8: 20-23, "The executing GUI program 23 can be any MS-Windows program including the program manager, and is generally whatever program is in the foreground of the first computer 19.").

As per Claim 31, the rejection of Claim 29 is incorporated; and <u>Huntsman</u> further discloses:

- wherein said user input comprises a uniform resource locator (URL) (see Column 9: 14-28, "A standard WWW "Web" browser 27 such as Netscape [8] is initiated on a second computer. To operate the remote control system 1, a user on the second computer 25 specifies the "starter URL" as specified by the coordinated naming convention 5. URLs are defined by the WWW specification and include a named address of a target computer and a filename associated with the target computer.").

As per Claim 32, the rejection of Claim 31 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the URL specifies one or more of: the first computer or the graphical program on the first computer (see Column 9: 14-28, "A standard WWW "Web" browser 27 such as Netscape [8] is initiated on a second computer. To operate the remote control system 1, a user on the second computer 25 specifies the "starter URL" as specified by the coordinated naming convention 5. URLs are defined by the WWW specification and include a named address of a target computer and a filename associated with the target computer.").

As per Claim 33, the rejection of Claim 28 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the network is the Internet (see Column 9: 12-14, "The second computer 25 is connected to the first computer over the internet 31 ...").

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As per Claim 34, the rejection of Claim 28 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the second computer stores a web browser, wherein the web browser is executable on the second computer to display the user interface of the graphical program on the second computer (see Column 9: 42-50, "The browser 27 on the second computer 25 will decode the HTML document file, and locate the references to the GIF file, request and retrieve the GIF file containing the screen image in a separate HTTP request, and display the GIF image on the screen of the second computer 25, as an HTML "clickable" image.").

As per Claim 35, the rejection of Claim 28 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the second computer is operable to receive user input to the graphical program via the displayed user interface on the second computer (see Column 9: 42-50, "The user in this embodiment will see a screen virtually identical to the GUI screen on the first computer. The user may then click on a menu, button, or other Windows control image.");
- wherein the second computer is operable to provide the user input to the first computer over the network (see Column 9: 50-57, "The WWW browser, in accordance with HTML/HTTP protocol [9,6,7], will determine the coordinates pointed to be the mouse. The coordinates will be sent to the URL associated with the region in the map file, which will contain the address of the first computer. In addition to the coordinates, the HTML mode variables

defined by the coordinated naming convention 5 will also be transmitted as the result of a click."); and

- wherein the graphical program executing on the first computer is operable to respond to the user input (see Column 9: 61-67 to Column 10: 1-6, "The server control program 21 on the first computer 19 converts the HTML URL selection to GUI control commands using the hypertext-to-GUI-response means 7, and interpret the associated filename as a selection for the corresponding control according to the coordinated naming convention 5, and programmatically select the control or perform other action as request by the MODE and KEYTEXT variables using the programmatic-GUI-control-execution means 13 of the hypertext-to-GUI-response means 7.").

As per Claim 36, the rejection of Claim 28 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the graphical program is executable to produce a first output state (see Column 9: 31-41, "In response to the starter URL, the server program 21 builds a new file, a GIF image file containing the screen image of the GUI on the first computer, and returns the data of REMOTE.HTM."); and
- wherein the second computer is operable to display the first output state in the user interface (see Column 9: 42-50, "The browser 27 on the second computer 25 will decode the HTML document file, and locate the references to the GIF file, request and retrieve the GIF file containing the screen image in a separate HTTP request, and display the GIF image on the screen of the second computer 25, as an HTML "clickable" image.").

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As per Claim 37, the rejection of Claim 36 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the graphical program is executable to produce a second output state after the graphical program produces the first output state (see Column 9: 61-67 to Column 10: 1-6, "The server control program 21 on the first computer 19 converts the HTML URL selection to GUI control commands using the hypertext-to-GUI-response means 7, and interpret the associated filename as a selection for the corresponding control according to the coordinated naming convention 5, and programmatically select the control or perform other action as request by the MODE and KEYTEXT variables using the programmatic-GUI-control-execution means 13 of the hypertext-to-GUI-response means 7.");
- wherein the first computer is operable to provide a user interface update indicating the second output state over the network (see Column 9: 61-67 to Column 10: 1-6, "The server control program 21 on the first computer 19 converts the HTML URL selection to GUI control commands using the hypertext-to-GUI-response means 7, and interpret the associated filename as a selection for the corresponding control according to the coordinated naming convention 5, and programmatically select the control or perform other action as request by the MODE and KEYTEXT variables using the programmatic-GUI-control-execution means 13 of the hypertext-to-GUI-response means 7."); and
- wherein the second computer is operable to update the user interface displayed on the second computer in response to the user interface update (see Column 10: 6-10, "Moments later, a user at the second computer 25 will typically select the "REFRESH" hypertext link which sends

a reference of REMOTE.HTM of FIG. 10 to the first computer, repeating the behavior just described.").

As per Claim 38, the rejection of Claim 28 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the first computer is operable to provide information regarding the graphical program (see Column 9: 31-41, "In response to the starter URL, the server program 21 builds a new file, a GIF image file containing the screen image of the GUI on the first computer, and returns the data of REMOTE.HTM."); and
- wherein the second computer is operable to display the graphical diagram on the display of the second computer, using the information regarding the graphical diagram (see Column 9: 42-50, "The browser 27 on the second computer 25 will decode the HTML document file, and locate the references to the GIF file, request and retrieve the GIF file containing the screen image in a separate HTTP request, and display the GIF image on the screen of the second computer 25, as an HTML "clickable" image.").

However, <u>Huntsman</u> does not disclose:

- wherein the first computer is operable to provide information regarding the block diagram of the graphical program.

Kodosky discloses:

- provide information regarding the block diagram of the graphical program (see Column 8: 8-23, "The virtual instrument 40 also includes a block diagram 46 which graphically provides a visual representation of a procedure by which a specified value for an input variable

displayed in the front panel 42 can produce a corresponding value for an output variable in the front panel 42.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of <u>Kodosky</u> into the teaching of <u>Huntsman</u> to include wherein the first computer is operable to provide information regarding the block diagram of the graphical program. The modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 39, the rejection of Claim 38 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the second computer is operable to provide the user input specifying the edit to the first computer (see Column 9: 50-57, "The WWW browser, in accordance with HTML/HTTP protocol [9,6,7], will determine the coordinates pointed to be the mouse. The coordinates will be sent to the URL associated with the region in the map file, which will contain the address of the first computer. In addition to the coordinates, the HTML mode variables defined by the coordinated naming convention 5 will also be transmitted as the result of a click."); and
- wherein the first computer is operable to edit the graphical program according to the user input specifying the edit (see Column 9: 61-67 to Column 10: 1-6, "The server control program 21 on the first computer 19 converts the HTML URL selection to GUI control commands using the hypertext-to-GUI-response means 7, and interpret the associated filename as a selection for the corresponding control according to the coordinated naming convention 5,

and programmatically select the control or perform other action as request by the MODE and KEYTEXT variables using the programmatic-GUI-control-execution means 13 of the hypertext-to-GUI-response means 7.").

However, Huntsman does not disclose:

- wherein in the second computer is operable to receive user input specifying an edit to the block diagram.

Kodosky discloses:

- wherein in the second computer is operable to receive user input specifying an edit to the block diagram (see Column 18: 47-51, "FIG. 25 shows the EDIT menu selections ... CLEAR is useful for removing items from the active window, e.g., selected wires and structures from the block diagram window, or controls from the front panel window.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of <u>Kodosky</u> into the teaching of <u>Huntsman</u> to include wherein in the second computer is operable to receive user input specifying an edit to the block diagram. The modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 40, the rejection of Claim 28 is incorporated; however, <u>Huntsman</u> does not disclose:

- wherein the graphical program includes a block diagram portion and a user interface portion; and

- wherein the first computer is operable to execute the block diagram portion of the graphical program.

Kodosky discloses:

- wherein the graphical program includes a block diagram portion and a user interface portion (see Figure 3: 40); and
- wherein the first computer is operable to execute the block diagram portion of the graphical program (see Column 17: 63-68, "With the front panel and block diagram complete, the instrument is ready to be used. The instrument is operated from the front panel. To execute the instrument, the user simply configures the input controls and "clicks" the GO button on the top of the screen ...").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of <u>Kodosky</u> into the teaching of <u>Huntsman</u> to include wherein the graphical program includes a block diagram portion and a user interface portion; and wherein the first computer is operable to execute the block diagram portion of the graphical program. The modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 41, the rejection of Claim 40 is incorporated; however, <u>Huntsman</u> does not disclose:

- wherein the user interface of the graphical program comprises at least one input variable icon for providing inputs to the block diagram portion and at least one output variable icon for displaying outputs produced by the block diagram portion.

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Kodosky discloses:

- wherein the user interface of the graphical program comprises at least one input variable icon for providing inputs to the block diagram portion and at least one output variable icon for displaying outputs produced by the block diagram portion (see Column 8: 13-19, "The virtual instrument 40 also includes a block diagram 46 which graphically provides a visual representation of a procedure by which a specified value for an input variable displayed in the front panel 42 can produce a corresponding value for an output variable in the front panel 42.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kodosky into the teaching of Huntsman to include wherein the user interface of the graphical program comprises at least one input variable icon for providing inputs to the block diagram portion and at least one output variable icon for displaying outputs produced by the block diagram portion. The modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 42, the rejection of Claim 41 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the second computer is operable to receive user input manipulating inputs of at least one input variable on the second computer (see Column 9: 42-50, "The user in this embodiment will see a screen virtually identical to the GUI screen on the first computer. The user may then click on a menu, button, or other Windows control image.");

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- wherein the first computer is operable to receive inputs of at least one input variable (see Column 9: 50-57, "The WWW browser, in accordance with HTML/HTTP protocol [9,6,7], will determine the coordinates pointed to be the mouse. The coordinates will be sent to the URL associated with the region in the map file, which will contain the address of the first computer. In addition to the coordinates, the HTML mode variables defined by the coordinated naming convention 5 will also be transmitted as the result of a click.");

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- wherein the second computer is operable to receive the output of at least one output variable (see Column 9: 61-67 to Column 10: 1-6, "The server control program 21 on the first computer 19 converts the HTML URL selection to GUI control commands using the hypertext-to-GUI-response means 7, and interpret the associated filename as a selection for the corresponding control according to the coordinated naming convention 5, and programmatically select the control or perform other action as request by the MODE and KEYTEXT variables using the programmatic-GUI-control-execution means 13 of the hypertext-to-GUI-response means 7."); and
- wherein the second computer is operable to display the output of at least one output variable (see Column 10: 6-10, "Moments later, a user at the second computer 25 will typically select the "REFRESH" hypertext link which sends a reference of REMOTE.HTM of FIG. 10 to the first computer, repeating the behavior just described.").

However, <u>Huntsman</u> does not disclose:

- wherein the block diagram portion is operable to execute using the inputs of at least one input variable on the second computer; and

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- wherein the block diagram portion is operable to generate an output of at least one output variable.

Kodosky discloses:

- wherein the block diagram portion is operable to execute using the inputs of at least

one input variable on the second computer (see Column 13: 47-55, "... execution instructions

can be constructed by constructing a visual display in which at least one input variable produces

at least output variable according to a displayed procedure."); and

- wherein the block diagram portion is operable to generate an output of at least one

output variable (see Column 13: 47-55, "... execution instructions can be constructed by

constructing a visual display in which at least one input variable produces at least output

variable according to a displayed procedure.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the teaching of Kodosky into the teaching of Huntsman to

include wherein the block diagram portion is operable to execute using the inputs of at least one

input variable on the second computer; and wherein the block diagram portion is operable to

generate an output of at least one output variable. The modification would be obvious because

one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 43, the rejection of Claim 28 is incorporated; however, Huntsman does not

disclose:

wherein the graphical program comprises a graphical data flow program.

Kodosky discloses:

- wherein the graphical program comprises a graphical data flow program (see Column 9: 33-36, "The structures represented in FIGS. 8-12 substantially facilitate the application of data flow programming techniques which are used in the preferred embodiments of the present invention.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of <u>Kodosky</u> into the teaching of <u>Huntsman</u> to include wherein the graphical program comprises a graphical data flow program. The modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 44, the rejection of Claim 28 is incorporated; however, <u>Huntsman</u> does not disclose:

- wherein the graphical program comprises a graphical control flow program.

Kodosky discloses:

- wherein the graphical program comprises a graphical control flow program (see Column 9: 36-42, "FIG. 8 illustrates a sequence structure. FIG. 9 illustrates an iterative loop structure. FIG. 10 illustrates a conditional structure ...").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of <u>Kodosky</u> into the teaching of <u>Huntsman</u> to include wherein the graphical program comprises a graphical control flow program. The modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 45, the rejection of Claim 28 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the graphical program comprises a graphical execution flow program (see Column 8: 20-23, "The executing GUI program 23 can be any MS-Windows program including the program manager, and is generally whatever program is in the foreground of the first computer 19.").

As per Claim 46, the rejection of Claim 28 is incorporated; however, <u>Huntsman</u> does not disclose:

- wherein the graphical program implements a virtual instrument; and
- wherein the user interface of the graphical program comprises a front panel of the virtual instrument.

Kodosky discloses:

- wherein the graphical program implements a virtual instrument (see Figure 3: 40); and
- wherein the user interface of the graphical program comprises a front panel of the virtual instrument (see Figure 3: 42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of <u>Kodosky</u> into the teaching of <u>Huntsman</u> to include wherein the graphical program implements a virtual instrument; and wherein the user interface of the graphical program comprises a front panel of the virtual instrument. The

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modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 47, the rejection of Claim 28 is incorporated; and <u>Huntsman</u> further discloses:

- a plurality of second computers each operable to couple to the network, wherein each of the plurality of second computers includes a display (see Column 8: 11-15, "One or more second computers 25 running a standard, off-the-shelf hypertext browser program 27, can effectuate remote control using the standard, widely installed networking protocols, including those used in the internet [9].");
- wherein the first computer is operable to execute the graphical program and is operable to provide information describing a user interface of the graphical program over the network to each of the plurality of second computers during said executing (see Column 8: 20-23, "The executing GUI program 23 can be any MS-Windows program including the program manager, and is generally whatever program is in the foreground of the first computer 19."; Column 9: 31-41, "In response to the starter URL, the server program 21 builds a new file, a GIF image file containing the screen image of the GUI on the first computer, and returns the data of REMOTE.HTM."); and
- wherein each of the plurality of second computers is operable to receive the information describing the user interface and display the user interface of the graphical program in response to said providing (see Column 9: 42-50, "The browser 27 on the second computer 25 will decode the HTML document file, and locate the references to the GIF file, request and

retrieve the GIF file containing the screen image in a separate HTTP request, and display the GIF image on the screen of the second computer 25, as an HTML "clickable" image.").

As per Claim 48, the rejection of Claim 28 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the graphical program is executable to perform a measurement or automation function (see Column 1: 29-34, "GUI environments tend to use a pointing device, like a mouse, in addition to a keyboard. Instead of typing a textual command, the user of a graphical interface typically selects a button or menu selection with a pointing device such as a mouse and "clicks" on his selection.").

As per Claim 49, the rejection of Claim 28 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the second computer is operable to display information indicating a plurality of graphical programs on the first computer (see Column 8: 20-23, "The executing GUI program 23 can be any MS-Windows program including the program manager, and is generally whatever program is in the foreground of the first computer 19."); and
- wherein, in indicating the graphical program on the first computer, the user input selects the graphical program from the plurality of graphical programs (see Column 9: 47-50, "The user in this embodiment will see a screen virtually identical to the GUI screen on the first computer. The user may then click on a menu, button, or other Windows control image.").

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As per Claim 50, the rejection of Claim 49 is incorporated; and <u>Huntsman</u> further discloses:

- wherein, in displaying information indicating a plurality of graphical programs on the first computer, the second computer is operable to display a list of the plurality of graphical programs on the first computer (see Column 8: 20-23, "The executing GUI program 23 can be any MS-Windows program including the program manager, and is generally whatever program is in the foreground of the first computer 19."; Column 9: 47-49, "The user in this embodiment will see a screen virtually identical to the GUI screen on the first computer."); and
- wherein, in indicating the graphical program on the first computer, the user input selects the graphical program from the list of the plurality of graphical programs (see Column 9: 47-50, "The user in this embodiment will see a screen virtually identical to the GUI screen on the first computer. The user may then click on a menu, button, or other Windows control image.").

As per Claim 51, <u>Huntsman</u> discloses:

- establish a network connection with client software over a network (see Column 9: 12-14, "The second computer 25 is connected to the first computer over the internet 31 ...");
- receive user input from the client software indicating a graphical program for execution (see Column 9: 14-28, "A standard WWW "Web" browser 27 such as Netscape [8] is initiated on a second computer. To operate the remote control system 1, a user on the second computer 25 specifies the "starter URL" as specified by the coordinated naming convention 5.

URLs are defined by the WWW specification and include a named address of a target computer and a filename associated with the target computer.");

- execute the graphical program (see Column 8: 20-23, "The executing GUI program 23 can be any MS-Windows program including the program manager, and is generally whatever program is in the foreground of the first computer 19."); and
- send information describing a user interface of the graphical program over a network to the client software after establishing the network connection with the client software (see Column 9: 31-41, "In response to the starter URL, the server program 21 builds a new file, a GIF image file containing the screen image of the GUI on the first computer, and returns the data of REMOTE.HTM.");
- wherein the user interface is operable to facilitate interaction between a user and the graphical program over a network (see Column 9: 42-50, "The user in this embodiment will see a screen virtually identical to the GUI screen on the first computer. The user may then click on a menu, button, or other Windows control image.").

However, <u>Huntsman</u> does not disclose:

- wherein the graphical program includes a block diagram that comprises a plurality of interconnected function icons representing graphical data flow of a desired function, and wherein said executing the graphical program comprises executing the block diagram.

Kodosky discloses:

- wherein the graphical program includes a block diagram that comprises a plurality of interconnected function icons representing graphical data flow of a desired function, and wherein said executing the graphical program comprises executing the block diagram (see Column 7: 44-

59, "The execution subsystem 24 assigns at least one value to the input variable and executes the execution instructions to produce a value for the output variable. The control processor 26 implements the block diagram editor 22 and the execution subsystem 24 of the preferred embodiment."; Column 8: 8-23, "The virtual instrument 40 also includes a block diagram 46 which graphically provides a visual representation of a procedure by which a specified value for an input variable displayed in the front panel 42 can produce a corresponding value for an output variable in the front panel 42.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kodosky into the teaching of Huntsman to include wherein the graphical program includes a block diagram that comprises a plurality of interconnected function icons representing graphical data flow of a desired function, and wherein said executing the graphical program comprises executing the block diagram. The modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 52, the rejection of Claim 51 is incorporated; and <u>Huntsman</u> further discloses:

- provide information indicating a plurality of graphical programs to the client software over the network, wherein the information indicating a plurality of graphical programs is usable by the client software to display information indicating the plurality of graphical programs (see Column 8: 20-23, "The executing GUI program 23 can be any MS-Windows program including the program manager, and is generally whatever program is in the foreground of the first

computer 19."; Column 9: 47-49, "The user in this embodiment will see a screen virtually identical to the GUI screen on the first computer."); and

- wherein, in indicating the graphical program for execution, the user input selects the graphical program from the plurality of graphical programs (see Column 9: 47-50, "The user in this embodiment will see a screen virtually identical to the GUI screen on the first computer. The user may then click on a menu, button, or other Windows control image.").

As per Claim 53, the rejection of Claim 52 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the information indicating a plurality of graphical programs is usable by the client software to display a list of the plurality of graphical programs (see Column 8: 20-23, "The executing GUI program 23 can be any MS-Windows program including the program manager, and is generally whatever program is in the foreground of the first computer 19."; Column 9: 47-49, "The user in this embodiment will see a screen virtually identical to the GUI screen on the first computer."); and
- wherein, in indicating the graphical program, the user input selects the graphical program from the list of the plurality of graphical programs (see Column 9: 47-50, "The user in this embodiment will see a screen virtually identical to the GUI screen on the first computer. The user may then click on a menu, button, or other Windows control image.").

As per Claim 54, the rejection of Claim 51 is incorporated; and <u>Huntsman</u> further discloses:

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- receive user input to the graphical program from the client software over the network (see Column 9: 42-50, "The user in this embodiment will see a screen virtually identical to the GUI screen on the first computer. The user may then click on a menu, button, or other Windows control image."); and

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- provide the user input to the graphical program (see Column 9: 50-57, "The WWW browser, in accordance with HTML/HTTP protocol [9,6,7], will determine the coordinates pointed to be the mouse. The coordinates will be sent to the URL associated with the region in the map file, which will contain the address of the first computer. In addition to the coordinates, the HTML mode variables defined by the coordinated naming convention 5 will also be transmitted as the result of a click.");
- wherein the graphical program is operable to respond to the user input (see Column 9: 61-67 to Column 10: 1-6, "The server control program 21 on the first computer 19 converts the HTML URL selection to GUI control commands using the hypertext-to-GUI-response means 7, and interpret the associated filename as a selection for the corresponding control according to the coordinated naming convention 5, and programmatically select the control or perform other action as request by the MODE and KEYTEXT variables using the programmatic-GUI-control-execution means 13 of the hypertext-to-GUI-response means 7.").

As per Claim 55, the rejection of Claim 51 is incorporated; and <u>Huntsman</u> further discloses:

- wherein the graphical program produces a first output state (see Column 9: 31-41, "In response to the starter URL, the server program 21 builds a new file, a GIF image file

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containing the screen image of the GUI on the first computer, and returns the data of REMOTE.HTM."); and

- wherein said sending information describing a user interface of the graphical program comprises sending information indicative of the first output state (see Column 9: 42-50, "The browser 27 on the second computer 25 will decode the HTML document file, and locate the references to the GIF file, request and retrieve the GIF file containing the screen image in a separate HTTP request, and display the GIF image on the screen of the second computer 25, as an HTML "clickable" image.").

As per **Claim 56**, the rejection of **Claim 55** is incorporated; and <u>Huntsman</u> further discloses:

- wherein the graphical program produces a second output state after the graphical program produces the first output state (see Column 9: 61-67 to Column 10: 1-6, "The server control program 21 on the first computer 19 converts the HTML URL selection to GUI control commands using the hypertext-to-GUI-response means 7, and interpret the associated filename as a selection for the corresponding control according to the coordinated naming convention 5, and programmatically select the control or perform other action as request by the MODE and KEYTEXT variables using the programmatic-GUI-control-execution means 13 of the hypertext-to-GUI-response means 7."); and
- wherein the computer accessible memory medium further comprises program instructions executable to send a user interface update indicating the second output state to the client software (see Column 10: 6-10, "Moments later, a user at the second computer 25 will

typically select the "REFRESH" hypertext link which sends a reference of REMOTE.HTM of FIG. 10 to the first computer, repeating the behavior just described.").

As per Claim 57, the rejection of Claim 51 is incorporated; and <u>Huntsman</u> further discloses:

- send information regarding the graphical program to the client software (see Column 9: 31-41, "In response to the starter URL, the server program 21 builds a new file, a GIF image file containing the screen image of the GUI on the first computer, and returns the data of REMOTE.HTM."); and
- wherein the information regarding the block diagram is useable by the client software to display the block diagram on a client computer system (see Column 9: 42-50, "The browser 27 on the second computer 25 will decode the HTML document file, and locate the references to the GIF file, request and retrieve the GIF file containing the screen image in a separate HTTP request, and display the GIF image on the screen of the second computer 25, as an HTML "clickable" image.").

However, <u>Huntsman</u> does not disclose:

- send information regarding the block diagram of the graphical program to the client software.

Kodosky discloses:

- send information regarding the block diagram of the graphical program (see Column 14: 55-58, "FIGS. 20a-l illustrate computer screen displays during each successive step in a

construction of an exemplary block diagram using a block diagram editor such as that of FIGS. 2 or 4.").

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of <u>Kodosky</u> into the teaching of <u>Huntsman</u> to include send information regarding the block diagram of the graphical program to the client software. The modification would be obvious because one of ordinary skill in the art would be motivated to remotely control a virtual instrument.

As per Claim 58, the rejection of Claim 51 is incorporated; and <u>Huntsman</u> further discloses:

- establish a network connection with client software associated with a plurality of client computer systems (see Column 8: 11-15, "One or more second computers 25 running a standard, off-the-shelf hypertext browser program 27, can effectuate remote control using the standard, widely installed networking protocols, including those used in the internet [9]."); and
- send information describing a user interface of the graphical program over a network to the client software of each of the plurality of client computer systems after establishing the network connection with the client software of each of the plurality of client computer systems (see Column 9: 31-41, "In response to the starter URL, the server program 21 builds a new file, a GIF image file containing the screen image of the GUI on the first computer, and returns the data of REMOTE.HTM.").

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Response to Arguments

13. Applicant's arguments filed on June 17, 2008 have been fully considered, but they are not persuasive.

In the Remarks, Applicant argues:

a) Nowhere does the cited art disclose receiving user input to the second computer, wherein said user input specifies the graphical program on the first computer, wherein the graphical program comprises a plurality of interconnected function icons representing graphical data flow of a desired function, as recited in claim 1.

Cited col.9:14-28 discloses a user on a second computer specifying a "starter URL" that includes a named address of a target computer and a filename associated with the target computer. Applicant respectfully submits that the Office Action has incorrectly interpreted the filename as a program for which a (remote) GUI is required. As Huntsman makes clear in col.9:61-col. 10:3:

The server control program 21 on the first computer 19 converts the HTML URL selection to GUI control commands using the hypertext-to-GUI-response means 7, and interpret the associated filename as a selection for the corresponding control according to the coordinated naming convention 5, and programmatically select the control or perform other action as request by the MODE and KEYTEXT variables using the programmatic-GUI- control-execution means 13 of the hypertext-to-GUI-response means 7. (emphasis added)

As may be seen, the cited filename is not a program, but instead includes data indicating or encoding a GUI interaction by the user on the second computer, e.g., a button-press, mouse-click, etc., which is then applied to the GUI on the first computer.

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The Office Action admits that Huntsman fails to disclose a graphical program, but asserts that Kodosky remedies this admitted deficiency of Huntsman. Applicant respectfully submits that a proper reason to combine Huntsman with Kodosky has not been provided. For example, the reason to combine suggested by the Office Action is to "remotely control a virtual instrument". Applicant respectfully submits that the Examiner has simply described a presumed benefit of Applicant's invention, and notes that neither cited reference mentions or even hints at remotely controlling a virtual instrument. Applicant thus submits that the Examiner has improperly used Applicant's claimed invention as a blueprint for attempting to construct the invention claimed, which is improper, since neither reference provides any motivation or suggestion to combine. Thus, Huntsman and Kodosky are not properly combinable to make a prima facie case of obviousness.

Examiner's response:

a) Examiner disagrees. Applicant's arguments are not persuasive for at least the following reasons:

First, without acquiesce to the Applicant's assertion that the cited filename is not a program, the Examiner first submits that the claims broadly recite "wherein said user input indicates the graphical program on the first computer." The claim language does not require any limitation relating to what type of information is inputted by the user and thus, the claims are not

limited to the scope of user inputting graphical program information (e.g., name of the graphical program, location of the graphical program, etc.). In accordance with MPEP § 2111, during patent examination, the claims must be given the broadest reasonable treatment and interpreted as broadly as their terms reasonably allow.

Second, with respect to the Applicant's assertion that the cited art does not disclose the particular claim limitation of "wherein said user input indicates the graphical program on the first computer," as previously pointed out in the Non-Final Rejection (mailed on 03/28/2008) and further clarified hereinafter, the Examiner respectfully submits that Huntsman clearly discloses "wherein said user input indicates the graphical program on the first computer" (see Column 9: 12-28, "A standard WWW "Web" browser 27 such as Netscape [8] is initiated on a second computer. To operate the remote control system 1, a user on the second computer 25 specifies the "starter URL" as specified by the coordinated naming convention 5. URLs are defined by the WWW specification and include a named address of a target computer and a filename associated with the target computer."). Note that Huntsman's invention is directed to a remote control system for remotely controlling a Microsoft Windows® or other GUI-based first computer from a second computer over the Internet using only a standard world-wide-web hypertext browser on the second computer (see Abstract). One of ordinary skill in the art would readily recognize that in order to remotely control a Microsoft Windows® or other GUI-based first computer from a second computer, a user must indicate a Microsoft Windows® or other GUI-based first computer from a second computer. In the cited portion of Huntsman, a user specifies the "starter URL," which includes an address of a target (first) computer and a filename associated with the target computer. The "starter URL" indicates the location of the first computer that is executing the

graphical program. Thus, by indicating the location of the first computer, the user also indicates the graphical program currently executing on the first computer that he/she wants to remotely control. In addition, the Examiner further submits that the Applicant intends on limiting the scope of the limitation "user input indicat[ing] the graphical program on the first computer" to include a URL and the URL specifies the first computer or the graphical program on the first computer as recited in the dependent claims (*e.g.*, Claims 9 and 10).

Third, with respect to the Applicant's assertion that the Office action admits that Huntsman fails to disclose a graphical program, as previously pointed out in the Non-Final Rejection (mailed on 03/28/2008) and further clarified hereinafter, the Examiner respectfully submits that the Non-Final Rejection (mailed on 03/28/2008) clearly states that Huntsman fails to disclose, exactly, "wherein the graphical program comprises a plurality of interconnected function icons representing graphical data flow of a desired function." The Non-Final Rejection (mailed on 03/28/2008) does not state that Huntsman fails to disclose a graphical program as averred by the Applicant. In fact, Huntsman clearly discloses a graphical program (see Abstract). However, Huntsman does not disclose a graphical program comprising a plurality of interconnected function icons representing graphical data flow of a desired function.

Fourth, with respect to the Applicant's assertion that a proper reason to combine

Huntsman with Kodosky has not been provided, the Examiner respectfully submits that

Huntsman clearly discloses that the first computer can be any GUI-based computing

environment, including, but not limited to, all version of Microsoft Windows® and its successors

as well as other windowed platforms (see Column 8: 35-42). Kodosky's invention is directed to a

method for programming a computer system to control at least one of a virtual instrument and an

instrument (see Abstract). Thus, in view of the teaching of Kodosky and the state of the art, one of ordinary skill in the art would be motivated to replace the GUI-based windowed computing environment of Huntsman with the GUI-based graphical program of a virtual instrument of Kodosky. Such modification would allow the virtual instrument to be remotely controlled by a user.

Fifth, with respect to the Applicant's assertion that the Examiner has simply described a presumed benefit of the Applicant's invention and neither cited reference mentions nor hints at remotely controlling a virtual instrument, the Examiner respectfully submits that the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In the instant case, the motivation to combine Huntsman with Kodosky is found in the knowledge generally available to one of ordinary skill in the art as clarified hereinabove. Furthermore, there is no requirement that an "express, written motivation to combine must appear in prior art references before a finding of obviousness." See *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1276, 69 USPQ2d 1686, 1690 (Fed. Cir. 2004). See MPEP § 2145 (X)(A).

Sixth, with respect to the Applicant's assertion that the Examiner has improperly used Applicant's claimed invention as a blueprint for attempting to construct the invention claimed, the Examiner respectfully submits that it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes

into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the Applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Examiner furthers submits that the concept of remotely controlling a computer or software process is well-known to one of ordinary skill in the computing art and also conventional in the area of software programming. By way of an example and not of limitation, the various patent and non-patent literatures cited by the Examiner are all related to, one form or another, the concept of remotely controlling a computer or software process.

Seventh, the Examiner further submits that Huntsman is within the field of the Applicant's endeavor and hence is analogous prior art because Huntsman's invention is directed to a remote control system for remotely controlling a Microsoft Windows® or other GUI-based first computer from a second computer over the Internet using only a standard world-wide-web hypertext browser on the second computer. Kodosky is concerned with the same problem which the Applicant sought to be solved and hence is analogous prior art because Kodosky's invention is directed to a method for programming a computer system to control at least one of a virtual instrument and an instrument. Therefore, it is permissible to combine the teaching of Kodosky into the teaching of Huntsman to include the limitations disclosed by Kodosky since knowledge generally available to one of ordinary skill in the art provides a reason for combining the elements in the manner claimed. See MPEP § 2141.01(a).

Therefore, for at least the reasons set forth above, the rejections made under 35 U.S.C. § 103(a) with respect to Claims 1, 28, and 51 are proper and therefore, maintained.

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In the Remarks, Applicant argues:

b) For example, nowhere does the cited art disclose providing information regarding a block diagram of the graphical program, wherein the block diagram comprises the plurality of interconnected function icons; and displaying the block diagram on the second computer, using the information regarding the block diagram, as recited in claim 16.

Cited col.9:42-50 (and Huntsman generally) discloses providing information regarding a GUI, and displaying a screenshot of the GUI, and specifically fails to disclose providing information regarding a block diagram of a graphical program, which Applicant notes is graphical program code (i.e., the plurality of interconnected function icons). In fact, Huntsman nowhere discloses providing information regarding any kind of program at all, nor displaying any kind of program on the client system based on the provided information.

The Office Action admits that Huntsman fails to disclose providing information regarding a block diagram of the graphical program, but asserts that Kodosky remedies this admitted deficiency of Huntsman. However, Kodosky nowhere mentions or even hints at providing information regarding a block diagram of a graphical program to a second computer, nor displaying the block diagram on the second computer using the information. Thus, neither reference (nor both together) teaches these features of claim 16.

Additionally, Applicant respectfully submits that a proper reason to combine Huntsman with Kodosky has not been provided. For example, the reason to combine suggested by the Office Action is (again) to "remotely control a virtual instrument", which. Applicant respectfully submits is not germane to displaying a block diagram (graphical source code) on a remote computer, and so would not compel or motivate one of ordinary skill in the art to do so. Nor does

Huntsman or Kodosky mention or even hint at remote display of a block diagram or the desirability of doing so.

Examiner's response:

b) Examiner disagrees. Applicant's arguments are not persuasive for at least the following reasons:

First, without acquiesce to the Applicant's assertion that the cited art does not disclose providing information regarding a block diagram of the graphical program, wherein the block diagram comprises the plurality of interconnected function icons; and displaying the block diagram on the second computer, using the information regarding the block diagram, as recited in Claim 16, the Examiner first submits that Claim 16 does not recite the limitation of "wherein the block diagram comprises the plurality of interconnected function icons." Applicant is reminded that in order for such limitations to be considered, the claim language requires to specifically recite such limitations in the claim, otherwise broadest reasonable interpretations of the broadly claimed limitations are deemed to be proper.

Second, with respect to the Applicant's assertion that Huntsman does not disclose providing information regarding any kind of program at all, nor displaying any kind of program on the client system based on the provided information, the Examiner first submits that the Applicant already acknowledges that Huntsman discloses providing information regarding a GUI and displaying a screenshot of the GUI on page 18 of the "Remarks." As previously pointed out in the Non-Final Rejection (mailed on 03/28/2008) and further clarified hereinafter, the Examiner respectfully submits that Huntsman clearly discloses "providing information regarding

the graphical program to the second computer over the network" (see Column 9: 31-41, "In response to the starter URL, the server program 21 builds a new file, a GIF image file containing the screen image of the GUI on the first computer, and returns the data of REMOTE.HTM.") and "displaying the graphical diagram on the second computer, using the information regarding the graphical diagram" (see Column 9: 42-50, "The browser 27 on the second computer 25 will decode the HTML document file, and locate the references to the GIF file, request and retrieve the GIF file containing the screen image in a separate HTTP request, and display the GIF image on the screen of the second computer 25, as an HTML "clickable" image."). Note that the server program builds a new HTML file and a GIF image file containing the screen image of the GUI on the first computer. The HTML file is then sent to the browser on the second computer to be decoded and the GIF image of the GUI is displayed on the screen of the second computer.

Third, with respect to the Applicant's assertion that Kodosky does not mention nor hint at providing information regarding a block diagram of a graphical program to a second computer, nor displaying the block diagram on the second computer using the information, as previously pointed out in the Non-Final Rejection (mailed on 03/28/2008) and further clarified hereinafter, the Examiner would like to point out that Kodosky is relied upon for its specific teaching of "providing information regarding a block diagram of the graphical program." Huntsman clearly discloses "providing information regarding the graphical program to the second computer over the network" and "displaying the graphical diagram on the second computer, using the information regarding the graphical diagram" as discussed hereinabove and thus, Applicant's argument regarding Kodosky not mentioning or hinting at providing information regarding a

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block diagram of a graphical program to a second computer, nor displaying the block diagram on the second computer using the information is, at best, moot. Thus, in view of the teaching of Kodosky and the state of the art, one of ordinary skill in the art would be motivated to incorporate the block diagram information of the GUI-based graphical program of a virtual instrument of Kodosky in Huntsman in order to allow the virtual instrument to be remotely controlled by a user.

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Fourth, with respect to the Applicant's assertion that a proper reason to combine

Huntsman with Kodosky has not been provided, the Examiner has addressed the Applicant's argument regarding the lack of a proper reason to combine hereinabove. Furthermore, with respect to the Applicant's assertion that the reason to combine suggested by the Office action, "remotely control a virtual instrument," is not germane to displaying a block diagram on a remote computer, the Examiner respectfully submits that by displaying a block diagram of a GUI-based graphical program of a virtual instrument, a user is able to interact with the virtual instrument and thus, is able to remotely control it.

Therefore, for at least the reasons set forth above, the rejections made under 35 U.S.C. § 103(a) with respect to Claims 16, 38, and 57 are proper and therefore, maintained.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Qing Chen whose telephone number is 571-270-1071. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 4:00 PM. The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wei Zhen, can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Q. C./

Examiner, Art Unit 2191

/Wei Y Zhen/

Supervisory Patent Examiner, Art Unit 2191